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| 54/072 7590 03/05/2009 SHARP KABUSHIKI KAISHA C/O KEATING & BENNETT, LLP 1800 Alexander Bell Drive SUITE 200 Reston, VA 20191 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/597,201

Applicant(s)

MIYATA, KAZUHIKO

Examiner

JENNIFER ZUBAJLO

Art Unit

2629

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757).

As to claim 15, Belrose teaches a mobile display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising: a display section (see figure 7 – display 77); a voice output section (see figure 7 – sound output 79 – note that it is obvious that the sound output is the same as voice output); a text code input section arranged to receive an input text code from the external host apparatus (see figure 7 – text message 70, network interface 74, and text message store 75); a display control section arranged to display in the display section text corresponding to the input text code (see figure 7 – display 77); and a voice output control section arranged to output voice sounds corresponding to the input text code through the voice output section (see Abstract & figure 7 – message output control 76); wherein the text code input section outputs the input text code to the display control section and the voice output control section to display in the display section the text

corresponding to the input text code in the display section, and to output the voice sounds corresponding to the input text code through the voice output section (see Abstract and figure 7).

3. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Mi Hwa Cho (Patent No.: US 7003583).

Belrose teaches a mobile display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising: a display section (see figure 7 – display 77); a voice output section (see figure 7 – sound output 79); and a voice output control section arranged to output voice sounds corresponding to the text code through the voice output section (see Abstract & figure 7 – message output control 76); and a text recognizing section converts a text into a text code and outputs the text code to the voice output control section, and the voice sounds corresponding to the text code are outputted from the voice output section (see Abstract and figure 7).

Belrose does not directly teach a video signal input section arranged to receive an input video signal from the external host apparatus; a display control section arranged to display in the display section an image based on the input video signal; a text recognizing section arranged to extract a text portion from the input video signal and convert the text portion into a text code; wherein the video signal input section outputs the input video signal supplied from the external host apparatus to the display

control section and the text recognizing section; or an image corresponding to the input video signal is displayed in the display section.

Cho teaches a video signal input section arranged to receive an input video signal from the external host apparatus; a display control section arranged to display in the display section an image based on the input video signal; a text recognizing section arranged to extract a text portion from the input video signal and convert the text portion into a text code; wherein the video signal input section outputs the input video signal supplied from the external host apparatus to the display control section and the text recognizing section; and an image corresponding to the input video signal is displayed in the display section (see figures 1 and 3 and note that it is well known for camera phones to receive video/picture messages).

It would have been obvious to one skilled in the art at the time the invention was made to substitute the camera phone functionality of Cho into the mobile display apparatus taught by Belrose because camera phones are well known in the cell phone art.

As to claim 16, Belrose teaches the mobile display apparatus as set forth in claim 15 (see above rejection).

Belrose does not directly teach a video signal input section arranged to receive an input video signal from the external host apparatus; wherein the display control section displays in the display section both an image based on the input video signal

supplied to the video signal input section and the text corresponding to the input text code so that the text is superimposed on the image.

Cho teaches a mobile display apparatus further comprising: a video signal input section arranged to receive an input video signal from the external host apparatus (see figure 3 – video signal inputting unit 111); wherein the display control section displays in the display section both an image based on the input video signal supplied to the video signal input section and the text corresponding to the input text code so that the text is superimposed on the image (see figure 1 – display 12 and note that it is well known for camera phones to receive video/picture messages).

It would have been obvious to one skilled in the art at the time the invention was made to substitute the camera phone functionality of Cho into the mobile display apparatus taught by Belrose because camera phones are well known in the cell phone art.

4. Claims 17, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Mi Hwa Cho (Patent No.: US 7003583), further in view of Hideki Ueda (Pub. No.: US 2003/0052873).

As to claim 17, the combination of Belrose and Cho teach the mobile display apparatus as set forth in claim 16 (see above rejection).

Belrose and Cho do not directly teach wherein: the display section has a plurality of scanning lines arranged in a row and a plurality of signal lines arranged in a column and respectively intersecting with the scanning lines; the display control section includes: a scanning line drive circuit which serves as a display section drive circuit that is arranged to drive the display section by sequentially supplying scanning signals to the scanning lines; and a signal line drive circuit arranged to supply video signals to the signal lines, the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code; and the first signal line drive circuit and the second signal line drive circuit share the signal lines.

Ueda teaches wherein: the display section has a plurality of scanning lines arranged in a row and a plurality of signal lines arranged in a column and respectively intersecting with the scanning lines; the display control section includes: a scanning line drive circuit which serves as a display section drive circuit that is arranged to drive the display section by sequentially supplying scanning signals to the scanning lines; and a signal line drive circuit arranged to supply video signals to the signal lines, the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code; and the first signal line drive circuit and the second signal line drive circuit share the signal lines (see [0076]).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display section driving taught by Ueda into the mobile display apparatus taught by the combination of Belrose and Cho because driving is well known to active matrix displays which are commonly used in cell phones.

As to claim 34, the combination of Belrose and Cho teach the mobile display apparatus as set forth in claim 20 (see above rejection).

Belrose and Cho do not directly teach wherein: the display section is a liquid crystal display.

Ueda teaches wherein: the display section is a liquid crystal display (see [0076]—note LCD is a self emissive display).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display type taught by Ueda into the mobile display apparatus taught by the combination of Belrose and Cho because active matrix displays are commonly used in cell phones.

As to claim 35, the combination of Belrose and Cho teach the mobile display apparatus as set forth in claim 20 (see above rejection).

Belrose and Cho do not directly teach wherein: the display section includes an EL layer.

Ueda teaches wherein: the display section includes an EL layer (see [0076]—note EL is a self emissive display).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display type taught by Ueda into the mobile display apparatus taught by the combination of Belrose and Cho because active matrix displays are commonly used in cell phones.

5. Claims 18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Kazuhiko Miyata (EP 1 475 988 A1).

As to claim 18, Belrose teaches the mobile display apparatus as set forth in claim 15 (see above rejection).

Belrose does not directly teach wherein: the display section includes a display element driven by a thin film element; and the text code input section, the display control section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements formed provided on another substrate which is bonded to the thin film substrate.

Miyata teaches wherein: the display section includes a display element driven by a thin film element; and the text code input section, the display control section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements formed provided on another substrate which is bonded to the thin film

substrate (see [0008]-[0009] – note that self emissive displays are active matrix displays and consist of thin film transistors and thin film substrate).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display layout taught by Miyata into the mobile display apparatus taught by Belrose because active matrix displays are commonly used in cell phones.

As to claim 22, the combination of Belrose and Miyata teach the mobile display apparatus as set forth in claim 18 (see above rejection). Miyata also teaches wherein: the voice output section includes a sound source element which is layered on the display element of the display section within a flat region of the display element; and a sound source element generates voice sounds by vibrating the display element (see [0009]).

As to claim 23, the combination of Belrose and Miyata teaches the mobile display apparatus as set forth in claim 22 (see above rejection). Miyata also teaches wherein: the sound source element is driven by a sound source element drive section which is either directly provided on the thin film substrate, or includes active elements provided on another substrate which is bonded to the thin film substrate (see [0008]-[0010]).

6. Claims 19, 21, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Mi Hwa Cho (Patent No.: US 7003583), further in view of Kazuhiko Miyata (EP 1 475 988 A1).

As to claim 19, the combination of Belrose and Cho teach the mobile display apparatus as set forth in claim 16 (see above rejection).

Belrose and Cho do not directly teach wherein: the display section includes a display element driven by a thin film element; and the text code input section, the video signal input section, the display control section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements provided on another substrate which is bonded to the thin film substrate.

Miyata teaches wherein: the display section includes a display element driven by a thin film element; and the text code input section, the video signal input section, the display control section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements provided on another substrate which is bonded to the thin film substrate (see [0008]-[0009] – note that self emissive displays are active matrix displays and consist of thin film transistors and thin film substrate).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display layout by Miyata into the mobile display apparatus

taught by Belrose and Cho because active matrix displays are commonly used in cell phones.

As to claim 21, Belrose and Cho teach the mobile display apparatus as set forth in claim 20 (see above rejection).

Belrose and Cho do not directly teach wherein: the display section includes a display element driven by a thin film element; and the video signal input section, the display control section, the text recognizing section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements provided on another substrate which is bonded to the thin film substrate.

Miyata teaches wherein: the display section includes a display element driven by a thin film element; and the video signal input section, the display control section, the text recognizing section, and the voice output control section are either directly provided on a thin film substrate on which a pixel driving circuit element of the display element is provided, or include active elements provided on another substrate which is bonded to the thin film substrate (see [0008]-[0009] – note that self emissive displays are active matrix displays and consist of thin film transistors and thin film substrate).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display layout by Miyata into the mobile display apparatus taught by Belrose and Cho because active matrix displays are commonly used in cell phones.

As to claim 29, Belrose, Cho, and Miyata teach the mobile display apparatus as set forth in claim 21 (see above rejection). Miyata also teaches wherein: the voice output section includes a sound source element which is layered on the display element of the display section within a flat region of the display element; and a sound source element generates voice sounds by vibrating the display element (see [0009]).

As to claim 30, Belrose, Cho, and Miyata teach the mobile display apparatus as set forth in claim 29 (see above rejection). Miyata also teaches wherein: the sound source element is driven by a sound source element drive section which is either directly provided on the thin film substrate, or includes active elements provided on another substrate which is bonded to the thin film substrate (see [0008]-[0010]).

7. Claims 24, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Kazuhiko Miyata (EP 1 475 988 A1), further in view of Koji Miyake (Pub. No.: US 2001/0019877).

As to claim 24, the combination of Belrose and Miyata teach the mobile display apparatus as set forth in claim 18 (see above rejection).

Belrose and Miyata do not directly teach wherein: the thin film substrate includes a thin film layer including a polycrystal silicon thin film.

Miyake teaches wherein: the thin film substrate includes a thin film layer including a polycrystal silicon thin film (see [0057] and note that material is simply a matter design choice and polycrystal silicon thin film is well known in the active matrix display area).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display material taught by Miyake into the mobile display apparatus taught by Belrose and Miyata because material polycrystal silicon material is commonly used in active matrix cell phone displays.

As to claim 25, the combination of Belrose and Miyata teach the mobile display apparatus as set forth in claim 18 (see above rejection). Miyake teaches wherein: the thin film substrate includes a thin film layer including a continuous grain boundary crystal silicon thin film (see [0053]-[0055] – and note that material is simply a matter design choice).

As to claim 26, the combination of Belrose and Miyata teach the mobile display apparatus as set forth in claim 18 (see above rejection). Miyake also teaches wherein: the another substrate including the active elements has a hydrogen ion injection section; and the hydrogen ion injection section is adhered to the thin film substrate to combine said another substrate with the thin film substrate (see [0065] – and note that material is simply a matter design choice).

8. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Hideki Ueda (Pub. No.: US 2003/0052873).

As to claim 27, Belrose teaches the mobile display apparatus as set forth in claim 15 (see above rejection).

Belrose does not directly teach wherein: the display section is a liquid crystal display.

Ueda teaches wherein: the display section is a liquid crystal display (see [0076]—note LCD is a self emissive display).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display type taught by Ueda into the mobile display apparatus taught by Belrose because active matrix displays are commonly used in cell phones.

As to claim 28, Belrose teaches the mobile display apparatus as set forth in claim 15 (see above rejection).

Belrose does not directly teach wherein: the display section includes an EL layer.

Ueda teaches wherein: the display section includes an EL layer (see [0076]—note EL is a self emissive display).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display type taught by Ueda into the mobile display apparatus taught by Belrose because active matrix displays are commonly used in cell phones.

9. Claims 31, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume Belrose (Pub. No.: US 2002/0191757) in view of Mi Hwa Cho (Patent No.: US 7003583) in view of Kazuhiko Miyata (EP 1 475 988 A1), further in view of Koji Miyake (Pub. No.: US 2001/0019877).

As to claim 31, the combination of Belrose, Cho, and Miyata teach the mobile display apparatus as set forth in claim 21 (see above rejection).

Belrose, Cho, and Miyata do not directly teach wherein: the thin film substrate includes a thin film layer including a polycrystal silicon thin film.

Miyake teaches wherein: the thin film substrate includes a thin film layer including a polycrystal silicon thin film (see [0057] and note that material is simply a matter design choice and polycrystal silicon thin film is well known in the active matrix display area).

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display material taught by Miyake into the mobile display apparatus taught by Belrose, Cho, and Miyata because material polycrystal silicon material is commonly used in active matrix cell phone displays.

As to claim 32, the combination of Belrose, Cho, and Miyata teach the mobile display apparatus as set forth in claim 21 (see above rejection). Miyake teaches wherein: the thin film substrate includes a thin film layer including a continuous grain

boundary crystal silicon thin film (see [0053]-[0055] – and note that material is simply a matter design choice).

As to claim 33, the combination of Belrose, Cho, and Miyata teach the mobile display apparatus as set forth in claim 18 (see above rejection). Miyake teaches wherein: the another substrate including the active elements has a hydrogen ion injection section; and the hydrogen ion injection section is adhered to the thin film substrate to combine said another substrate with the thin film substrate (see [0065] – and note that material is simply a matter design choice).

Response to Arguments

10. Applicant's arguments with respect to claims 15-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shawn Thomas Segur (Patent No.: US 6,212,550).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER ZUBAJLO whose telephone number is (571)270-1551. The examiner can normally be reached on Monday-Friday, 8 am - 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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3/2/09

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